

# Rain and Reservoirs

## What's Next for the RGV

### September 20-23 2013



Thursday, Sept. 19<sup>th</sup> **8 PM CDT Update**



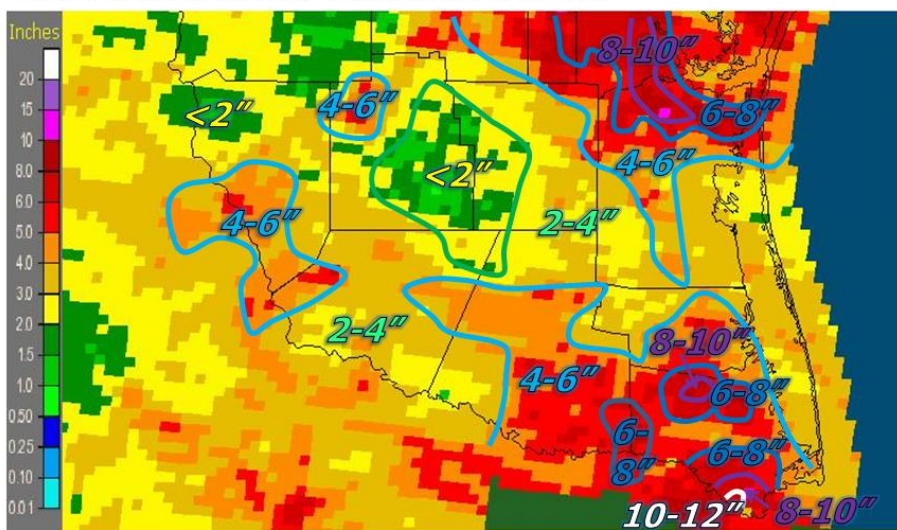
# The (Rainy) Story So Far

## September 2013 Rainfall

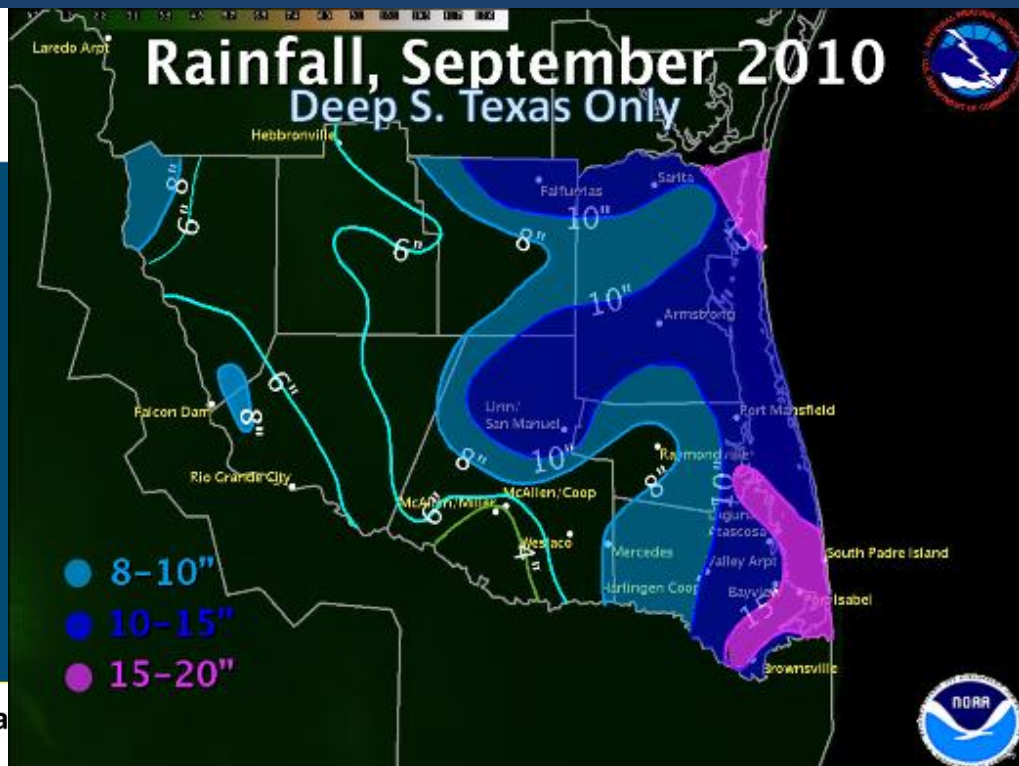
(through 9 AM 9/17)

Brownsville, TX (BR0): Current Month to Date Observed Precipitation

Valid at 9/17/2013 1200 UTC- Created 9/17/13 21:41 UTC



\*Based on Observed and Bias-Corrected Radar Estimated Data



It's not been this wet in three years across the RGV

Notable totals (through 3 PM 9/19):

Brownsville: 11.53 " (1.1" short of 2010)

Harlingen/Valley: 8.68" (**1.51 above 2010**)

McAllen/Miller: 6.19" (**2.56" above 2010**)

Stat Facts:

Brownsville: 14 Consecutive Days With Rain (new record; old record 12 in 1891, 1933, 1972)

McAllen: 11 Consecutive Days With Rain, expected to be 13 days at end of period (new record; old record 10 days)

Most areas: **Top 5-7 all time wettest September**



# The (Rainy) Story So Far September 2013 (thru 9/19 9 AM)

## Cameron County

Station Name	Total Precip	# of Reports
Brownsville 1.0 N	13.41	4
Brownsville 2.2 W	12.83	18
Brownsville 4.1 E	11.37	18
Brownsville 0.1 SSE	11.12	18
Brownsville 0.9 SW	10.06	13
Brownsville 1.9 ESE	9.92	10
Los Fresnos 0.8 SSE	9.31	13
Rancho Viejo 0.7 E	9.28	16
Brownsville 4.9 NW	8.81	9
Brownsville 6.4 SE	8.74	18
Brownsville 2.3 NW	8.33	15
Brownsville 5.0 NW	8.22	15
Brownsville 4.2 NE	8.09	14
Brownsville 6.4 WNW	8.00	18
La Feria 1.3 ENE	7.94	9
Harlingen 4.7 WSW	7.42	16
Harlingen 4.3 WSW	7.28	17
Brownsville 3.5 N	7.27	17
Brownsville 4.1 ENE	7.18	14
Los Fresnos 0.3 NE	6.66	17
San Benito 0.6 SSE	6.62	18
Harlingen 2.6 ESE	6.39	15
Brownsville 2.2 WNW	6.26	10
Rio Hondo 3.9 ENE	5.82	4
Laguna Vista 0.3 N	4.39	12
Rio Hondo 9.4 NE	3.92	9
Harlingen 3.1 SSW	3.50	7
South Padre Island 1.1 N	3.12	18

## Hidalgo County

McAllen 2.4 NE	7.32	18
Alamo 1.5 NNE	5.83	9
La Joya 11.1 N	5.36	18
Mission 1.9 ENE	5.08	14
McAllen 1.7 SSE	3.83	11
Edinburg 1.9 WNW	2.32	1
Mission 4.3 WSW	2.19	10

## Jim Hogg County

Station Name	Total Precip	# of Reports
Hebbronville 17.6 WSW	2.79	18

## Starr County

Station Name	Total Precip	# of Reports
Rio Grande City 13.8 NNW	4.78	17
Rio Grande City 17.7 NE	4.28	16
Rio Grande City 2.8 W	1.88	8

## Brooks County

Station Name	Total Precip	# of Reports
Falfurrias 8.9 SSW	4.01	17
Falfurrias 0.5 WNW	3.13	13

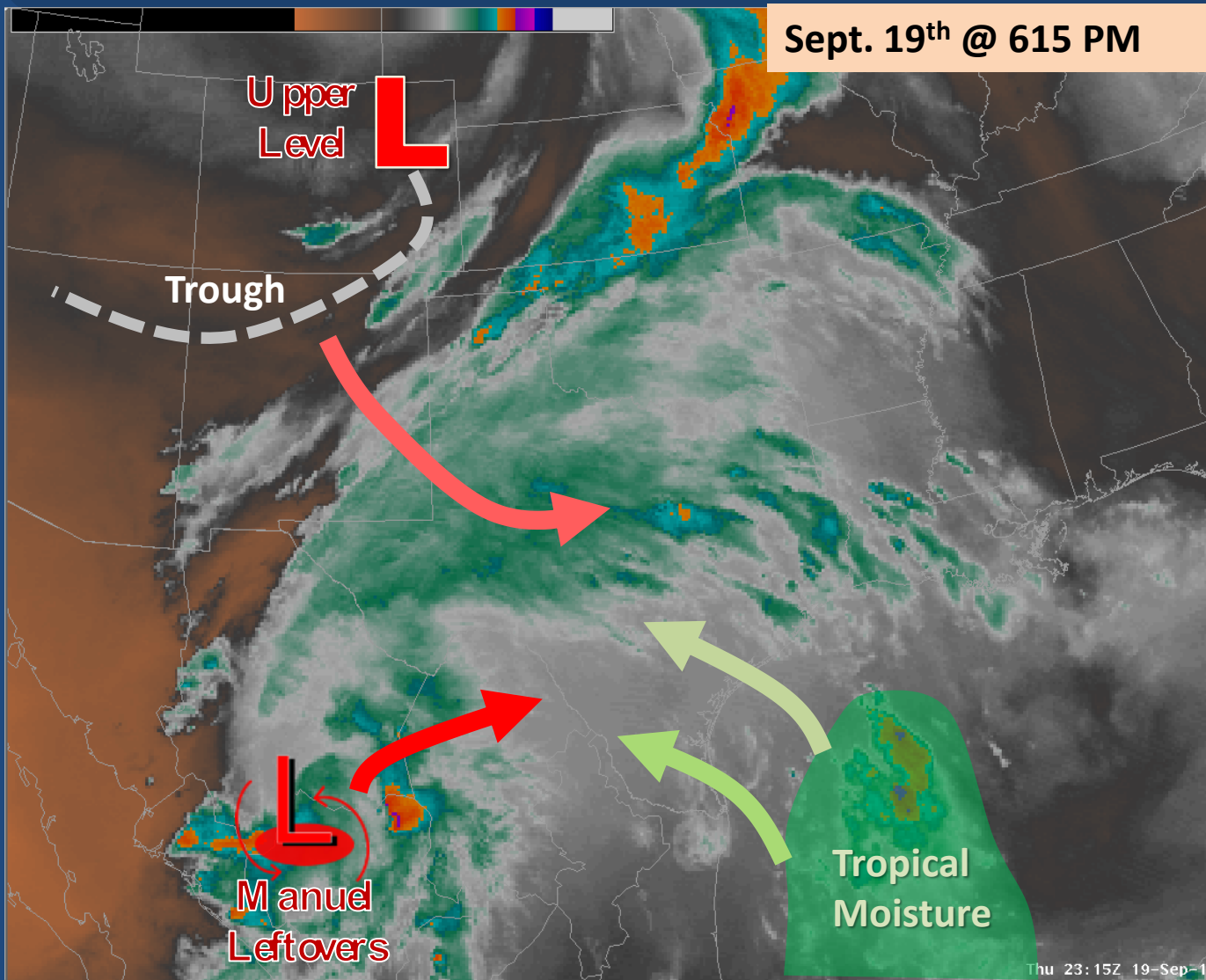
**\*Note: Some Locations with Less than 10 Reports May Be Missing Data**





# Pieces of the Puzzle: A Collision of Confusion?

Sept. 19<sup>th</sup> @ 615 PM



## The Players:

- Remains of Manuel, Moving Northeast
- Tropical Moisture and Low Pressure, drifting Northwest
- Upper Level Energy, moving east/southeast

## The Result:

- Torrential Rains in the Rio Conchos Thursday (where red “L” with arrows is for Manuel Leftovers)
- Collision of Systems Produce Torrential Rains near Del Rio Friday/Friday Night (tip of red arrow)
- Heaviest rains move across Central and Southeast Texas late Saturday and Sunday



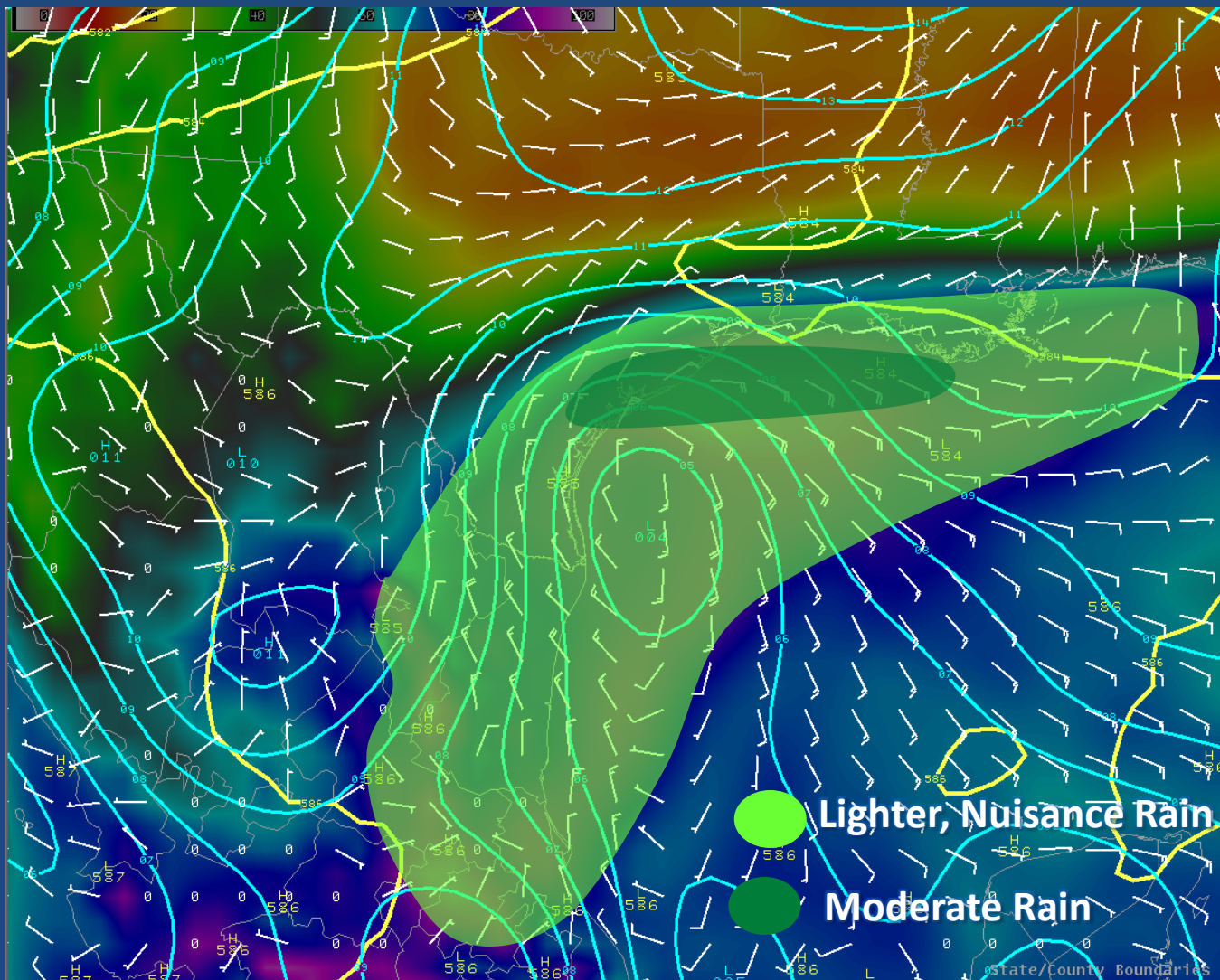
- **Heaviest Rain and Best Flood Potential: Del Rio/Laredo through San Antonio/Houston**
- **Lesser Amounts for the RGV, but could be enough to cause local poor drainage problems in Lower Valley**



# Pieces of the Puzzle: Sunday, Sept. 22

## Bad Beach Weekend?

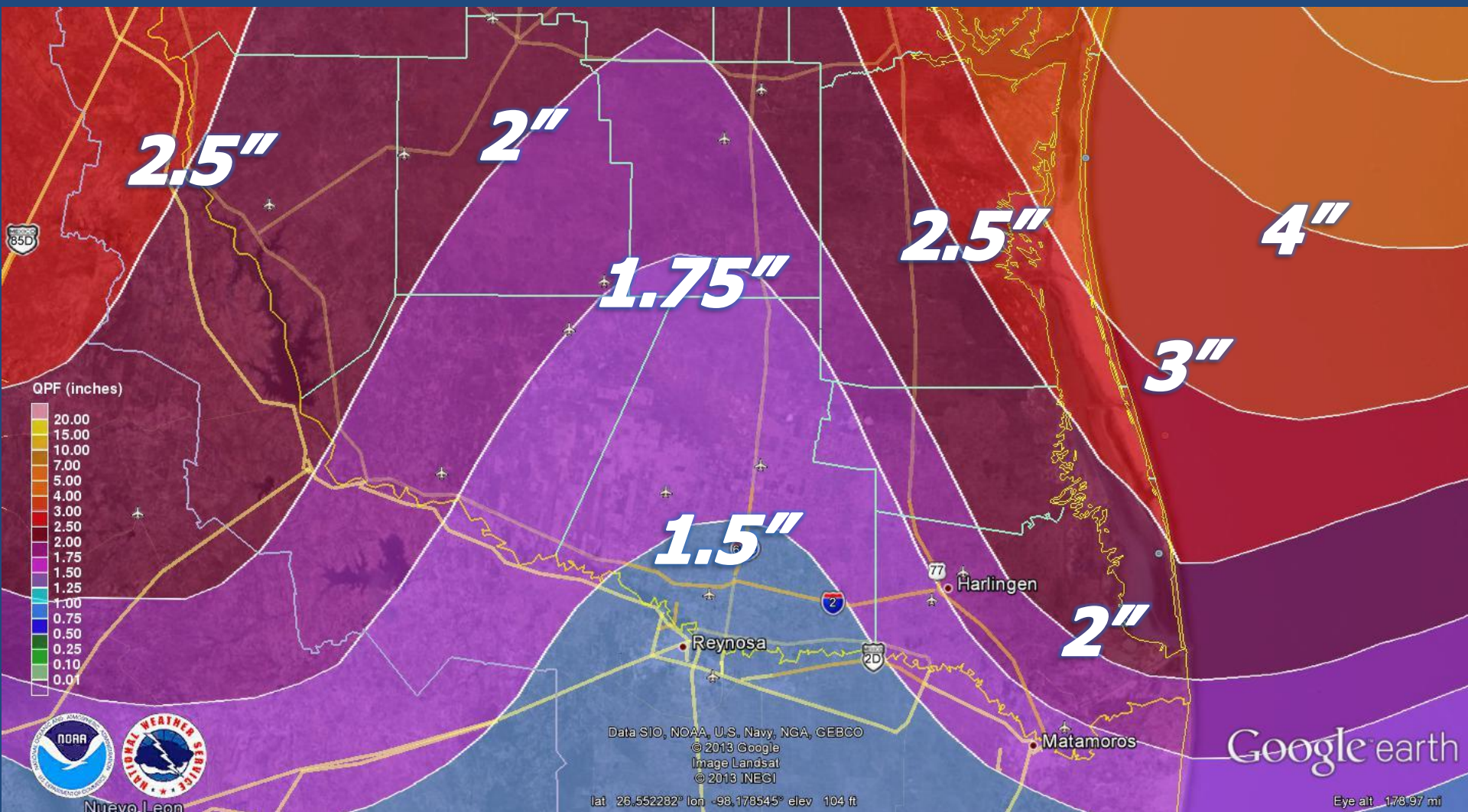
- Stiff North-Northeast Wind
- **Nuisance Gusty Showers**
- Rough and High Surf
- Tides up to Dunes at High Tide





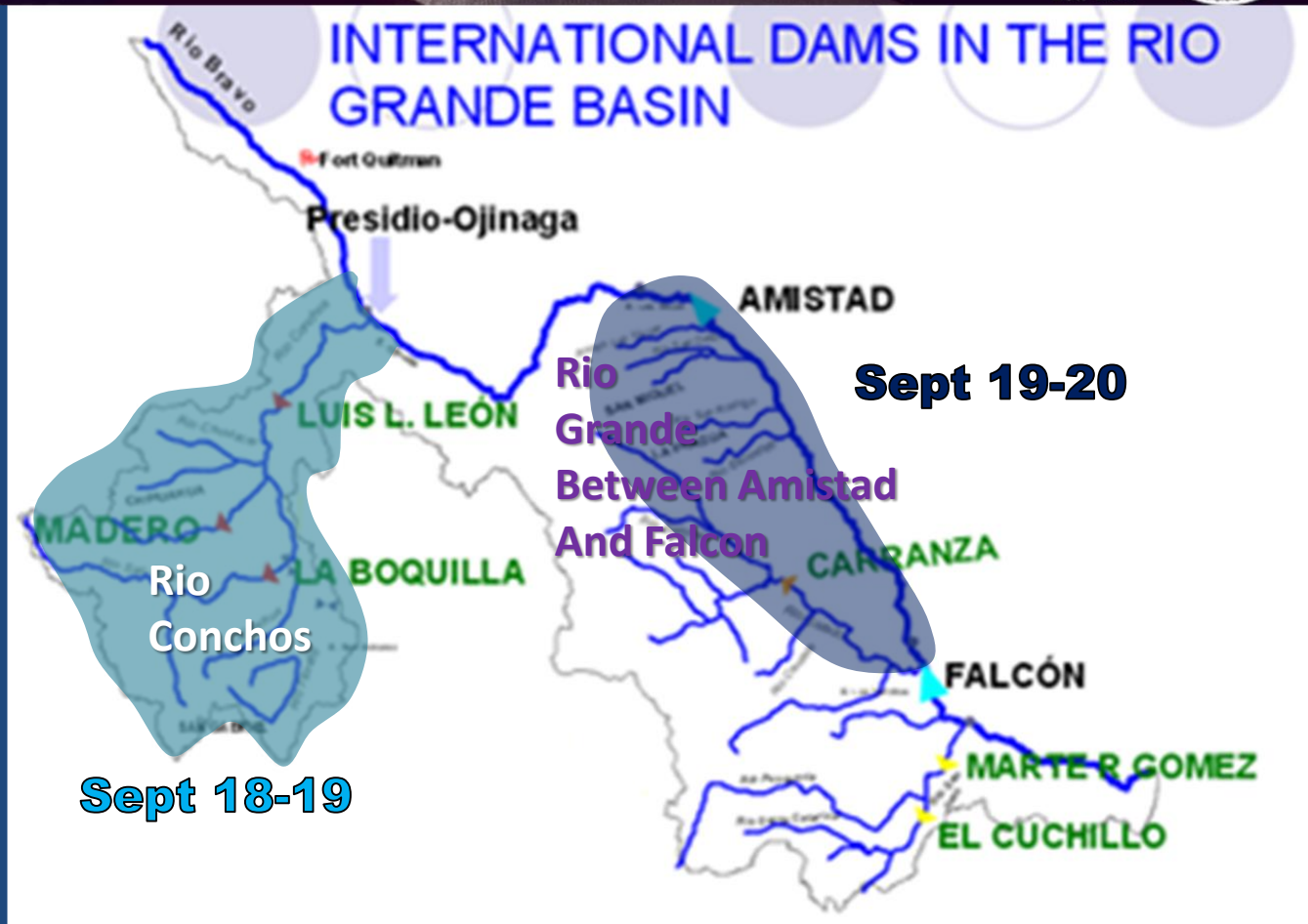


# Rainfall Forecast (Through 9/23)





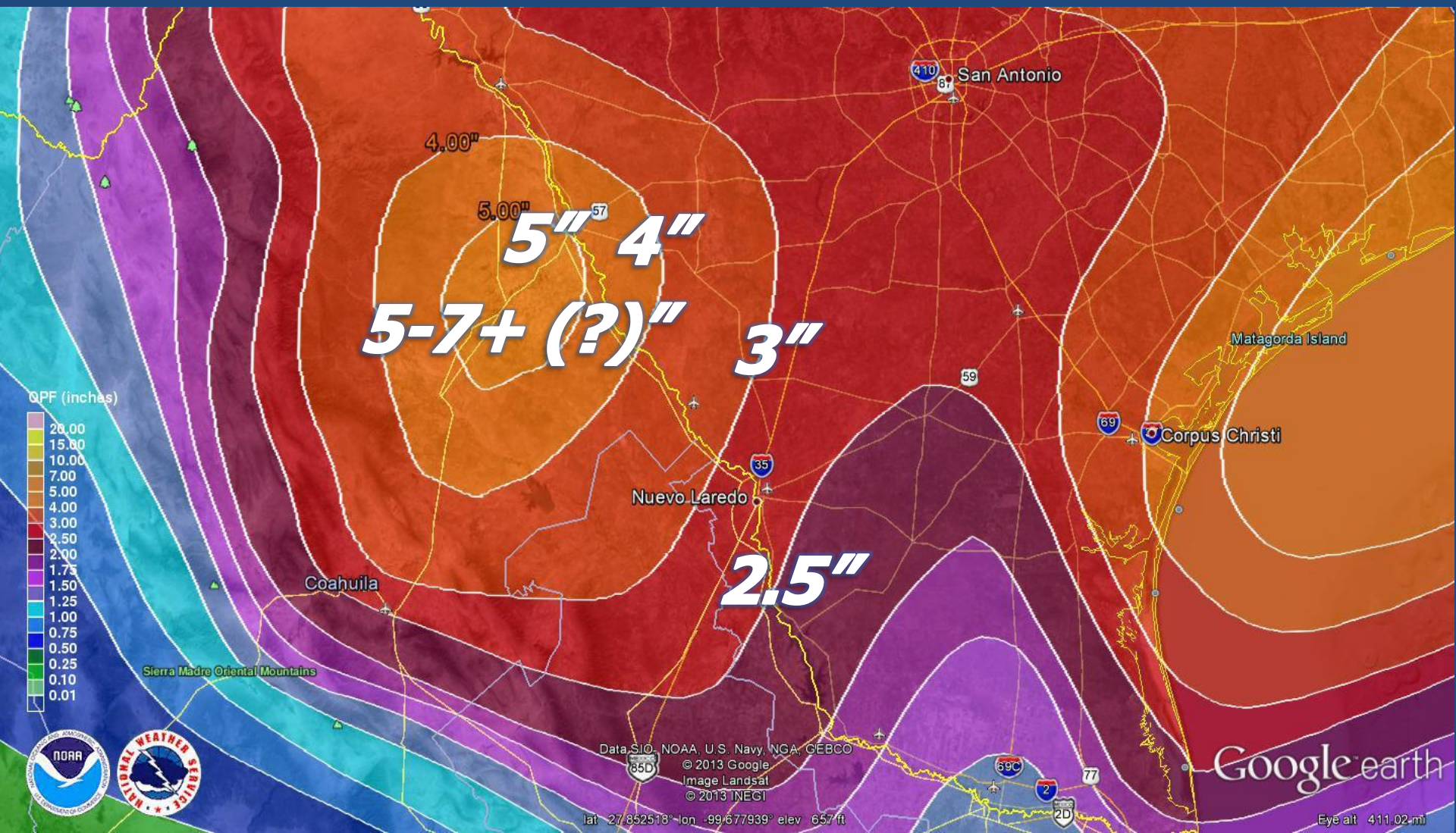
# Reservoir Source Map







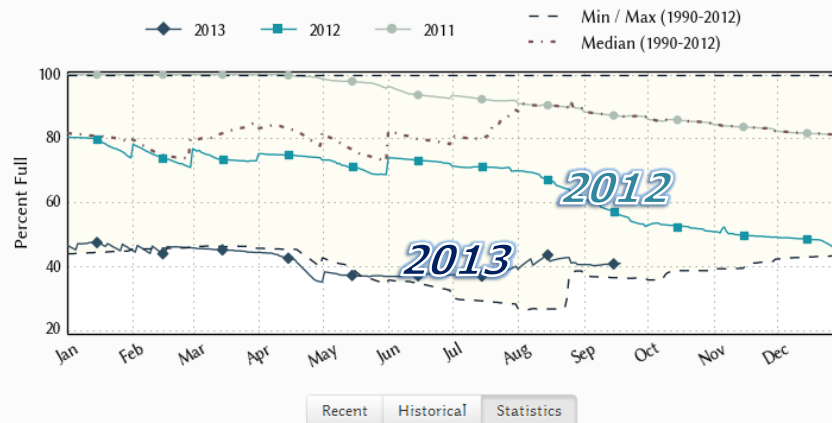
# Reservoir Relief: A Bit, For Sure





# Reservoir Relief (Continued)?

Amistad Reservoir is 40.9% full as of 2013-09-18



**note:**

Lake Amistad straddles the border of Texas and Mexico. By treaty, Texas has rights 56.2% of the total conservation capacity. The fraction of the actual storage that belongs to Texas is formally determined biweekly by the [International Boundary Water Commission \(IBWC\)](#). The IBWC is the legal repository of data related to this lake for treaty purposes and official versions of the datasets should be obtained directly from them. Conservation capacity is based on 56.2% of total conservation capacity. Conservation storage is based on the bi-weekly changing Texas fraction.

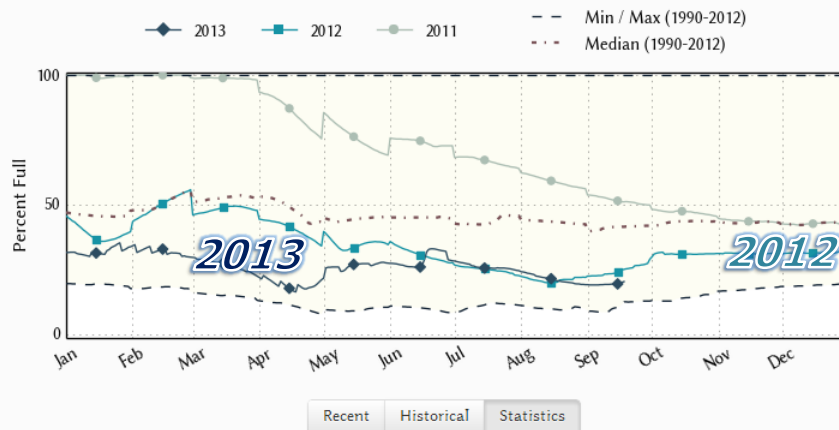
	Date	Percent Full	Water Level (ft)	Height Above Conservation Pool (ft)	Reservoir Storage (acre-ft)	Conservation Storage (acre-ft)	Conservation Capacity (acre-ft)	Surface Area (acres)
Today	2013-09-18	40.9	1,070.37	-46.63	1,142,647	752,153	1,840,849	29,153

- Helpful Benefits Coming to **Amistad...**
- Levels Need to Rise 500,000 Acre Feet to Match 2012 Levels
- **Highly Unlikely, but 100-250K Acre Feet? We'll know soon.**



# Reservoir Relief (Continued)?

Falcon Reservoir is 20.5% full as of 2013-09-18



**note:**

Lake Falcon straddles the border of Texas and Mexico. By treaty, Texas has rights 58.6% of the total conservation capacity. The fraction of the actual storage that belongs to Texas is formally determined biweekly by the [International Boundary Water Commission \(IBWC\)](#). The IBWC is the legal repository of data related to this lake for treaty purposes and official versions of the datasets should be obtained directly from them. Conservation capacity is based on 58.6% of total conservation capacity. Conservation storage is based on the bi-weekly changing Texas share.

	Date	Percent Full	Water Level (ft)	Height Above Conservation Pool (ft)	Reservoir Storage (acre-ft)	Conservation Storage (acre-ft)	Conservation Capacity (acre-ft)	Surface Area (acres)
Today	2013-09-18	20.5	261.78	-39.32	500,593	317,356	1,551,007	29,456

- Some Benefits Coming to **Falcon...**
- Levels Need to Rise ~30,000 Acre Feet to Match 2012 Levels
- **Now looks likely by next week...but will the rise match levels of October 2012, when upstream water arrived?**





# On the Beach...

Isla Blanca Park, Sept. 16<sup>th</sup> Aftn.



Credit: South Padre Live Cams

SPI Resorts, Sept. 16<sup>th</sup> Aftn.



Credit: South Padre Live Cams

Forecast for Saturday – Sunday (Sept. 21-22):

- Tides up to or just below the dunes at high tide (may look like photo at right)
- Surf should reach 6 foot breakers Saturday, perhaps 8 feet Sunday
- **Dangerous rip currents**
- Confidence is Medium based on difficulty determining low pressure development south of South Padre Island.



# On the Beach...and the Bay

**SOUTH PADRE ISLAND COAST GUARD STATION, TX StationId: 8779748**

Weekly Tide Prediction in Feet

Time Zone: LST/LDT

Datum: MLLW

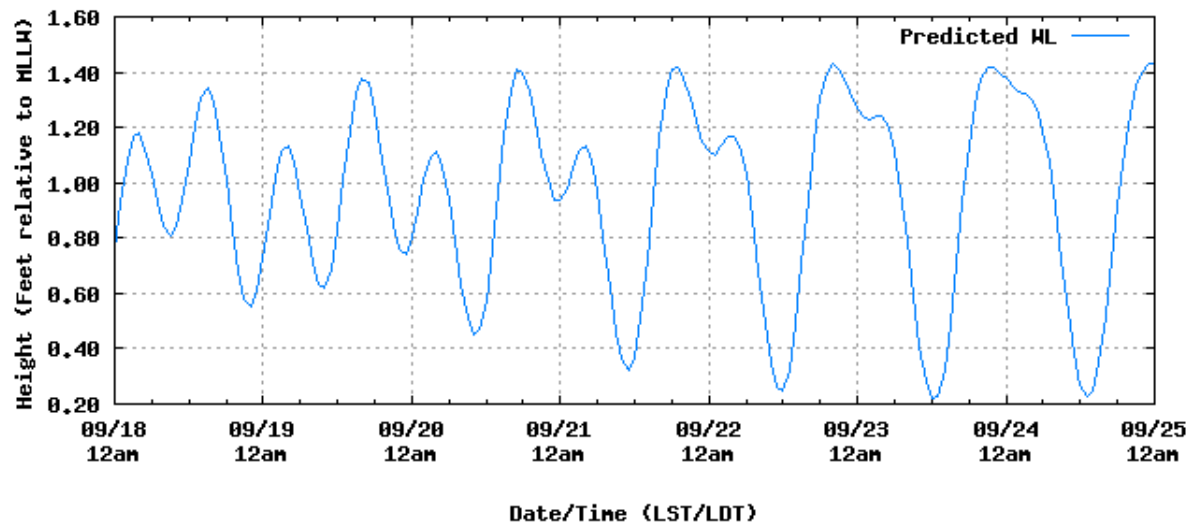
2013/09/18 - 2013/09/24

[Back to Station](#)

[Listing](#)

[Bookmark](#)

[Help](#)



Date	Day	Time	Hgt
09/18	Wed	03:35 AM	1.18 H
09/18	Wed	09:06 AM	0.81 L
09/18	Wed	02:55 PM	1.34 H
09/18	Wed	09:50 PM	0.55 L
09/19	Thu	03:42 AM	1.13 H
09/19	Thu	09:41 AM	0.61 L
09/19	Thu	04:12 PM	1.39 H
09/19	Thu	10:44 PM	0.74 L
09/20	Fri	03:48 AM	1.11 H
09/20	Fri	10:19 AM	0.44 L
09/20	Fri	05:25 PM	1.42 H
09/20	Fri	11:38 PM	0.93 L
09/21	Sat	03:50 AM	1.13 H
09/21	Sat	10:58 AM	0.32 L
09/21	Sat	06:38 PM	1.43 H
09/22	Sun	12:35 AM	1.1 L
09/22	Sun	03:41 AM	1.18 H
09/22	Sun	11:38 AM	0.24 L
09/22	Sun	07:58 PM	1.43 H
09/23	Mon	12:21 PM	0.22 L
09/23	Mon	09:36 PM	1.42 H
09/24	Tue	01:09 PM	0.23 L

- Predicted Tides Peaking into week of 9/22
- Continue to run 1+ feet above predicted bay side; 2 feet above predicted beachside
- **Primary High Tide in Late Afternoon/Early Evening all Weekend**



# Boating and Fishing

- Seas Below 7 feet through early Friday but May Rise to 7 feet or higher over the weekend
- Saturday Winds: Increasing to 15 knots and gusty mainly from the East
- Sunday Winds: May increasing to 20 knots and gusty, mainly from the north
- **Offshore Trips Will Be Difficult late Friday-Sunday due to rain and wind**





# Potential Impact/Action

- **Flooding Impact**
  - Nuisance flooding of poor drainage locations possible but more infrequent than earlier this week. Cameron County has best opportunity
  - Friday Night Football: Local brief downpours could make tough sledding. Travelers should be alert to low visibility/ponding of water traveling to and from games
  - Keep Canals, Ditches, Streets of Debris. Ensure Sewer Access. Keep pumps ready
- **Beach Actions**
  - Poor/Average swimmers out of water through weekend.
  - Seasoned Surfers Be Vigilant to Rips



# Summary

- Friday, 9/20: Increasing coverage of showers/storms compared with Thursday ; Scattered showers and a few thunderstorms; rainfall accumulations generally less than 1 inch except in heavier cells
- **Friday Night-Saturday: More rain coverage. 1 to 2 inches area wide; possibly 3 or more Brush Country. Building tides/surf but less than associated with Ingrid.**
- **Sunday: Breezy with scattered showers, more numerous near the coast. Dangerous surf and rips, continued tidal run-up.**
- **Monday-Wednesday: Highly Uncertain; Potentially Unsettled. More Scattered Showers and North breezes near the coast; drier air may filter in from the Rio Grande Plains.**



Thank  
You!

